



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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NOV 03 2010

Ref: EPR-N

Ms. Mary Gibson Scott, Superintendent
Grand Teton National Park
P.O. Drawer 170
Moose, Wyoming 83012

Re: Jackson Hole Airport Use Extension
Final Environmental Impact Statement
CEQ # 20100400

Dear Ms. Scott:

In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the Final Environmental Impact Statement (Final EIS) prepared by the National Park Service (NPS) for the Jackson Hole Airport Agreement Extension in Grand Teton National Park, Wyoming.

In our comment letter on the Draft EIS dated July 16, 2009, EPA raised concerns with the adequacy of the analyses presented in the Draft EIS as well as the predicted impacts to Grand Teton National Park. Specifically, EPA raised concerns regarding the significant and long-term noise impacts to the natural soundscape. While the Draft EIS disclosed adverse impacts, EPA was concerned the impacts would be more extensive and significant than presented in the Draft EIS. EPA recommended the NPS provide additional analysis and identify noise mitigation measures. In recognition of Grand Teton National Park as a federal Class I area protected under the Clean Air Act, EPA also recommended an air quality analysis be conducted. Over the past year, EPA has met frequently with the NPS to further discuss and work towards resolution of these concerns.

The Final EIS addresses some of EPA's concerns regarding the Draft EIS. The Final EIS includes the notable addition of options for mitigation measures to the preferred alternative and considerable restructuring of the natural soundscape analysis. The Final EIS also provides additional and more specific details on a number of important issues including air quality; the purpose and need; historic structures and cultural landscapes; and how future proposals for runway expansion will be considered. EPA appreciates the effort NPS has made to improve the analysis in the EIS and, in particular, the options for mitigation measures included in the preferred alternative.

After reviewing the additional analysis included in the Final EIS, EPA has two important remaining concerns regarding the predicted impacts to soundscape and air quality.

Natural Soundscape Impacts and Options for Mitigation Measures

The natural soundscape analysis has been substantially expanded in the Final EIS to include additional information and acoustic metrics. EPA commends NPS for the revised analysis and finds the presentation of the predicted impacts to be considerably improved. The noise analysis includes new graphical representation of several additional metrics including percent time audible, time above 60 dBA, and a 15-hour sound energy level (L_{eq}). The new metrics provide greater understanding of the airport's predicted increased long term, adverse impact to the natural soundscape in the Grand Teton National Park from the 2005 existing condition to 2025.

The additional metrics and information heighten EPA's concerns regarding the major, long-term adverse noise impacts to Grand Teton National Park and further substantiate the need for a firm commitment to mitigation. Data in the Final EIS suggest that noise impacts from the Jackson Hole Airport, without additional mitigation, will continue to increase into the future. For the preferred alternative, the maximum annual percent time audible is expected to increase from 30 to 34.2 percent in 2005 and 2025 respectively. During peak season, the maximum percent time audible is even greater, increasing from 41.8 percent in 2005 to 51.7 percent in 2025. The noise analysis further finds that under the preferred alternative aircraft using the Jackson Hole Airport would be audible more than 10 percent of the time over approximately 27 percent of the park. Sound impacts outside the park would increase and by 2025 could potentially meet the Federal Aviation Agency's (FAA) criterion for significance in an area directly south of the airport boundary.

In response to comments on the Draft EIS, the NPS has strengthened the commitment to reduce noise and other environmental impacts from the airport. A preliminary list of "Options for Mitigation Measures to Further Reduce Impacts of the Airport" (Final EIS, pages 64 to 74) has been identified by the working group comprised of Airport Board members and NPS employees. The NPS and Airport Board commit to implement several of the mitigation measures including: a noise compatibility study (Part 150 study); a Soundscape Management Plan for Grand Teton National Park; evaluation of a precision approach and departure under NextGen; evaluation of a new instrument approach; implementation of a Fly Quiet Program; and enhanced educational efforts with aircraft owners, operators and pilots. Under the preferred alternative, the Airport Board and NPS working group would continue to meet several times annually to identify and develop additional mitigation measures to reduce noise and other environmental impacts. EPA recommends the working group process be made public and be expanded to include a wider range of stakeholders. Stakeholders should include representation from non-governmental organizations with a strong interest in protecting Grand Teton National Park. EPA appreciates the steps NPS has identified in the Final EIS to bolster its commitment to mitigation of airport impacts.

The soundscape analysis, however, compels additional measures be taken to assure the predicted adverse impacts to Grand Teton National Park will be mitigated. EPA recommends NPS use its Record of Decision and the *Third Amendment to the Agreement between the U.S. Department of Interior and the Jackson Hole Airport Board* (Final EIS, Appendix F) to clarify and strengthen mitigation commitments. EPA suggests both the Record of Decision and the Amendment include:

- measureable goals and objectives of the noise mitigation strategy;
- a mechanism for accountability to ensure that the proposed mitigation strategy will be implemented;
- projected dates for development of the Soundscape Management Plan and other mitigation measures;
- commitments to confirm the noise impacts predicted by the analysis in the Final EIS and to verify the effectiveness of mitigation measures; and
- assurances of public involvement. (e.g., EPA recommends a commitment to make the proposed Biennial Report available to the public.)

We understand the existing limitations imposed by FAA, but believe additional improvements can be made within the confines of regulatory limitations.

Based on conversations with the NPS, EPA understands a “bridge agreement” between the Airport Board and the NPS is under consideration. The “bridge agreement” would be signed with the Record of Decision and/or Amendment and would provide additional detail and strengthened commitments to mitigation. As described, the “bridge agreement” may address EPA’s remaining concerns. We encourage the NPS to continue to pursue the “bridge agreement” and we hope our comments will be considered in its development.

Air Quality Impacts and Mitigation

In response to comments on the Draft EIS, the NPS has included in the Final EIS an extensive air quality analysis of the Airport’s potential impacts on Grand Teton National Park, a federal Class I area under the Clean Air Act. The Clean Air Act requires special protection of air quality and air quality related values in Class I areas. The new air quality analysis disclosed two primary areas of concern: nitrogen and sulfur deposition; and fine particulate (PM_{2.5}).

According to the Final EIS, it appears significant nitrogen and sulfur deposition impacts are already occurring in the Grand Teton National Park from the existing operation of the Jackson Hole Airport. Under existing operations, the deposition analysis threshold of 0.005 kilograms/hectare/year was exceeded for both nitrogen and sulfur by the predicted annual average deposition from emissions associated with Jackson Hole Airport at all 38 lakes studied in the analysis. The analysis predicted nitrogen deposition of 0.52 kilograms/hectare/year which is 100 times greater than the deposition analysis threshold. The analysis also predicted sulfur deposition at 0.072 kilograms per hectare per year which is 17 times greater than the deposition

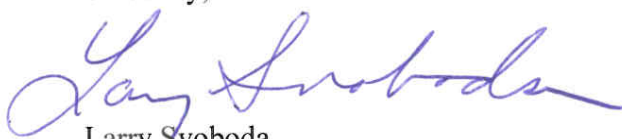
analysis threshold. While these modeled values represent a worst-case scenario for high-elevation lakes in Grand Teton National Park, they speak to the intensity and severity of current deposition impacts. With current nitrogen deposition rates estimated at 5.8 kilograms/hectare/year, the critical load value of 1.5 kilograms/hectare/year for high elevation lakes in Grand Teton National Parks is already exceeded. While the air quality analysis predicts a decrease in nitrogen and sulfur deposition under the preferred alternative, the impacts remain long-term and adverse.

The air quality modeling suggests that adverse deposition impacts are occurring, in part, from current operation of the airport and that these impacts would largely continue into the future under the preferred alternative. In view of the predicted high deposition loadings, EPA recommends that NPS consider conducting a sampling study to determine deposition rates in the lakes with the highest predicted impacts. These measurements would be useful in validating the modeled data and to establish baseline conditions for future studies. EPA further recommends the NPS and Airport Board identify and consider implementation of mitigation measures that may be employed to reduce nitrogen and sulfur emissions (e.g. low-nitrogen boilers and generators).

EPA is also concerned about the predicted concentrations of fine particulate ($PM_{2.5}$) from the preferred alternative. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Fine particles are also a major cause of reduced visibility. The air quality analysis estimates current $PM_{2.5}$ concentrations at $34.4 \mu g/m^3$. This concentration is predicted to continue into the future under the preferred alternative with the Airport's direct contribution estimated at $11.1 \mu g/m^3$ or approximately 33 percent of the total concentration. This value is approaching the current National Ambient Air Quality Standard (NAAQS) of $35 \mu g/m^3$. While these concentrations are in compliance with the NAAQS, they are cause for concern. EPA recommends the NPS remain attentive to this issue and evaluate potential impacts to fine particulate concentrations as decisions are made on future airport operations and mitigation measures.

Based on the substantial impacts to the soundscape and ecosystem of Grand Teton National Park, the EPA remains seriously concerned about the continued operation of this airport within the Park. It will be incumbent on the NPS to exercise due diligence to assure these impacts are absolutely minimized to this great national resource. We welcome the opportunity to further discuss these recommendations with you. If you have any questions regarding our comments and recommendations, please do not hesitate to call me at 303-312-6004 or Joyel Dhieux of my staff at 303-312-6647.

Sincerely,



Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation